Customer No.: 31561
Application No: 10/064,095
Docket NO.:9068-US-PA

AMENDMENT

In the claims:

Please amend the claims according to the following listing of claims and substitute it for all prior versions and listings of claims in the application.

1. (currently amended) A complementary metal oxide semiconductor (CMOS) image sensor device comprising:

a substrate ~~having an isolation structure that defines an active region~~;

an isolation structure formed on the substrate;

a photodiode sensing region ~~located~~ formed under the isolation structure in the substrate;

a reset transistor located on ~~the active region of~~ the substrate, wherein the reset transistor has a source region connected to a part of the photodiode sensing region; and

a local interconnect, wherein a first end of the local interconnect is located on the substrate between the photodiode sensing region and the reset transistor, extending to an upper portion of the isolation structure to cover a periphery of the isolation structure over the photosensing region and electrically connect to the source region of the reset transistor, and a second end of the local interconnect is located on the active region of the substrate to be used as a gate of a source follower transistor.

2. (original) The CMOS image sensor device of claim 1, wherein the photodiode sensing region is located under the isolation structure.

3. (previously presented) The CMOS image sensor device of claim 1, wherein a spacer is formed on a sidewall of the local interconnect.

4. (previously presented) The CMOS image sensor device of claim16, wherein the photodiode sensing region further comprises a doped region with a conductivity type same as that of the source region of the reset transistor.

5. (previously presented) The CMOS image sensor device of claim 1, wherein a P type well is further formed under the reset transistor.

6. (previously presented)The CMOS image sensor device of claim 1, wherein the substrate is a first type conductivity substrate and the photodiode sensing region comprises a second type conductivity doped region.

7. (previously presented)The CMOS image sensor device of claim 1, wherein the substrate is a P type substrate, and the photodiode sensing region comprises a deep N type well.

Claims 8-15 (cancelled)

16 (previously presented) The CMOS image sensor device of claim 1, wherein the source region is an n-type doped region.